

صفت

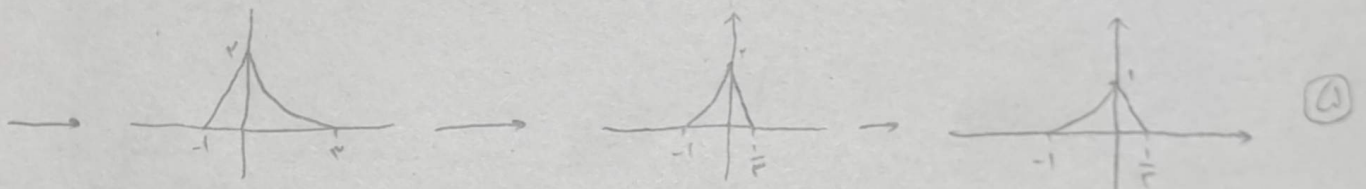
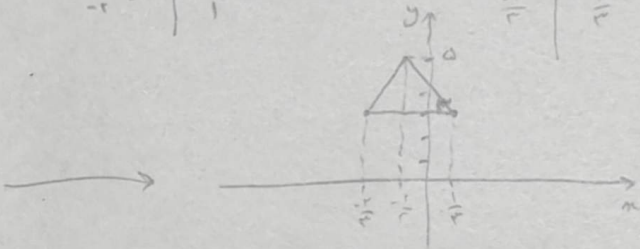
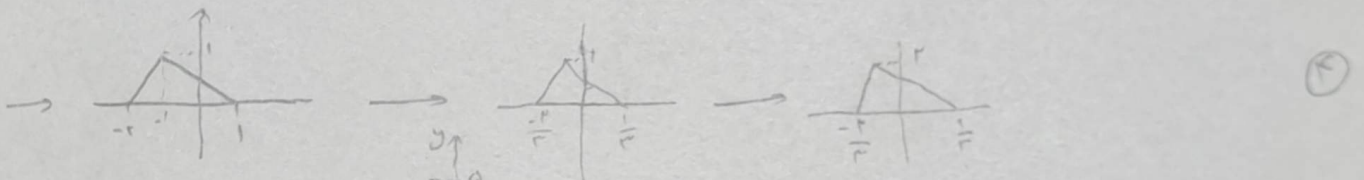
آریت

$$-r \leq \frac{r(x+r)}{\omega} \leq r \rightarrow -1 \leq r(x+r) \leq r \rightarrow -1 \leq rx \leq 1 \rightarrow D_{f,r} [-1, 1] \quad (1)$$

$$r(-r) - r \leq x \leq r(r) - r \rightarrow -1 \leq x \leq 1 \rightarrow D_{f,r} [-1, 1] \quad (2)$$

$$\frac{r(-1)+1}{r} \leq r-x < \frac{r(r)+1}{r} \rightarrow -1 \leq r-x < 1 \rightarrow -r \leq -x < r \quad (3)$$

$$\rightarrow -\frac{r}{\omega} < x \leq \frac{r}{\omega} \quad D_{f,r} \left[ -\frac{r}{\omega}, \frac{r}{\omega} \right]$$



$$-\frac{1}{r}(x-r) + r = -\frac{1}{r}x + \frac{1}{r}r + r = -\frac{1}{r}x + \frac{1}{r} + r = -\frac{1}{r}x + \frac{1}{r} + \frac{V}{r} \quad (4)$$

$$-x + 1 = V \Leftrightarrow -(x-V)(x-1) = 0 \Rightarrow \boxed{1, V}$$

$$D_f = (a+1, a] \quad D_g = [-r, b-1) \rightarrow (a+1, b-1) \subset (-r, a)$$

$$\rightarrow a \leq -r, b \leq a \quad a-b \leq -r-a \leq -9$$

①

$$D_f = \left[-\frac{1}{r}, \frac{\sqrt{a}}{r}\right] \quad R_f = [-1, r] \quad D_g = \left[-\frac{1}{r}, \frac{\sqrt{a}}{r}\right]$$

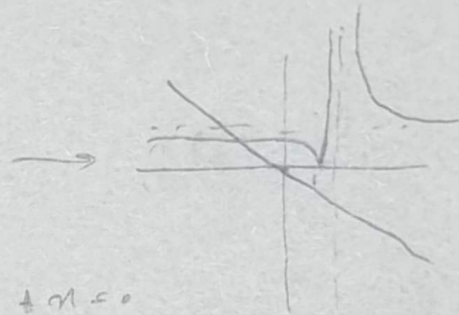
$$R_g = [0, \sqrt{a}]$$

$$|f(-1) - r| \leq a$$

$$|f(r) - r| \leq 1$$

②

$$\left| \frac{(x-r)+1}{r(x-r)+1} \right| + 1 = \left| \frac{x-1}{rx-r} \right| + 1$$



③

$$\text{if } (x < 0) \rightarrow g(x) \leq x \rightarrow \frac{x-1}{rx-r} + 1 + x \leq 0$$

$$x < -\sqrt{r}$$

$$\rightarrow \frac{rx - r + rx^2 + rx}{rx - r} \leq 0 \rightarrow \frac{rx^2 - r}{rx - r} \leq 0 \rightarrow r(x - \sqrt{r})(x + \sqrt{r}) \leq 0$$